

CLAIMS

What is claimed is:

1. A concrete mold device for vertically forming a concrete panel, comprising:
a plurality of concrete forms for collectively defining a mold cavity for receiving an
5 uncured concrete mixture therein, the concrete forms including:
 - i) a pair of opposing side wall forms configured to define side wall surfaces of the
mold cavity; and
 - ii) a pair of opposing end wall forms, configured to define end wall surfaces of the
mold cavity;
- 10 an elongate lower support gasket having an upper surface configured to define a bottom
surface of the mold cavity, the lower support gasket having gasket side walls configured to abut
against at least a portion of each of the side wall forms to provide a seal between the lower
support gasket and the side wall forms to retain the concrete mixture within the mold cavity.
- 15 2. The device of claim 1, further comprising securing structure associated with the forms
and being configured to retain the forms and lower support gasket in a secure configuration for
receiving the uncured concrete mixture within the mold cavity.
3. The device of claim 1, wherein the lower support gasket is formed of a substantially
20 compliant polymer.
4. The device of claim 1, further comprising reinforcing structure associated with the
lower support gasket to increase a load-bearing capacity of the lower support gasket.

5. The device of claim 4, wherein the reinforcing structure is disposed within the lower support gasket.

5 6. The device of claim 1, wherein the lower support gasket includes a pair of side edge flanges extending upwardly from an upper surface of the support gasket, each flange being configured to abut against at least a portion of a side wall form to enhance the seal between the lower support gasket and the side wall forms.

10 7. The device of claim 6, wherein each flange has a substantially triangular cross section.

8. The device of claim 6, wherein each flange has a cross section with a greatest width nearest the upper surface of the lower support gasket and a narrowest width at a point furthest above the upper surface of the lower support gasket.

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9. The device of claim 1, wherein the lower support gasket includes a terminal portion at each end of the support gasket, each terminal portion including a substantially flat contact surface for receiving a bottom side of an end wall form in a sealing configuration.

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10. The device of claim 2, wherein the securing structure includes at least one side wall form tensioning member, operatively coupled to each side wall form to apply a retaining force to the side wall forms to retain the side wall forms in a sealing position with respect to the lower support gasket when the concrete mixture is received in the form cavity.

11. The device of claim 10, wherein the at least one side wall form tensioning member is disposed outside of the mold cavity so as to retain the side wall forms in position without displacing the concrete mixture received in the mold cavity.

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12. The device of claim 1, further comprising a lower support platform disposed beneath the concrete forms, and wherein the lower support gasket is slidably disposed on the lower support platform.

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13. The device of claim 2, wherein the securing structure includes a support frame, and wherein each of the side wall forms is movably coupled to the support frame.

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14. The device of claim 2, wherein the securing structure includes retaining structure associated with each side wall form, the retaining structure being configured to retain one of the end wall forms adjacent an end of the pair of side wall forms.

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15. The device of claim 2, further comprising a plurality of side wall forms, end wall forms and lower support gaskets disposed within the securing structure, to define a plurality of vertical mold cavities to enable substantially simultaneous formation of multiple concrete panels.

16. The device of claim 1, wherein the side wall forms and end wall forms define a mold cavity corresponding to a substantially vertical concrete panel.

17. The device of claim 1, wherein at least one of the side wall forms include an inverse decorative pattern disposed on an interior surface thereof, so as to form the decorative pattern on a side wall surface of the concrete panel.

18. A method for providing a vertical concrete panel form for receiving an uncured concrete mixture, comprising the steps of:

positioning a lower support gasket on a lower support platform, the lower support gasket having two opposing ends and two opposing sides;

5 vertically positioning and abutting two opposing end wall forms at opposing ends of the support gasket;

 vertically positioning front and rear opposing side wall forms at opposing front and rear sides of the support gasket to thereby define a mold cavity into which an uncured concrete mixture can be poured;

10 forming a seal between the side wall forms and the lower support gasket by abutting front and rear edges of the lower support gasket against at least a portion of an interior side of the opposing side wall forms; and

 supporting each of the side wall forms and end wall forms to resist expansion forces introduced when pouring the uncured concrete mixture into the mold cavity.

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19. The method of claim 18, comprising the further step of reinforcing the lower support gasket with reinforcing structure to increase a load-bearing capacity of the lower support gasket.

20 20. The method of claim 19, wherein the step of reinforcing the lower support gasket includes the step of disposing the reinforcing structure within the lower support gasket.

21. The method of claim 18, wherein the lower support gasket is formed of a substantially compliant polymer.

22. The method of claim 18, comprising the further step of abutting a pair of side edge flanges extending upwardly from an upper surface of the support gasket against at least a portion of a side wall form to enhance the seal between the lower support gasket and the side wall forms.

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23. The method of claim 22, wherein the side edge flanges have a substantially triangular cross section.

24. The method of claim 22, wherein side edge flanges have a cross section with a
10 greatest width nearest the upper surface of the lower support gasket and a narrowest width at a point furthest above the upper surface of the lower support gasket.

25. The method of claim 18, comprising the further step of securing the forms with
15 securing structure to retain the forms and lower support gasket in a secure configuration for receiving the uncured concrete mixture within the mold cavity.

26. The method of claim 18, comprising the further step of disposing a plurality of side
20 wall forms, end wall forms and lower support gaskets within the securing structure, to define a plurality of mold cavities to enable substantially simultaneous formation of multiple concrete panels.